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Zetera White Paper on

IDE µSAN™

An overview, compare and contrast, technical paper on using the industry defacto standard IDE storage protocol to provide existing computers and consumer appliances with transparent access to µSAN™ storage devices.

This document references the µSAN™ White Paper (Version .35) an assumes the reader is familiar with the protocol.

Version 0.01

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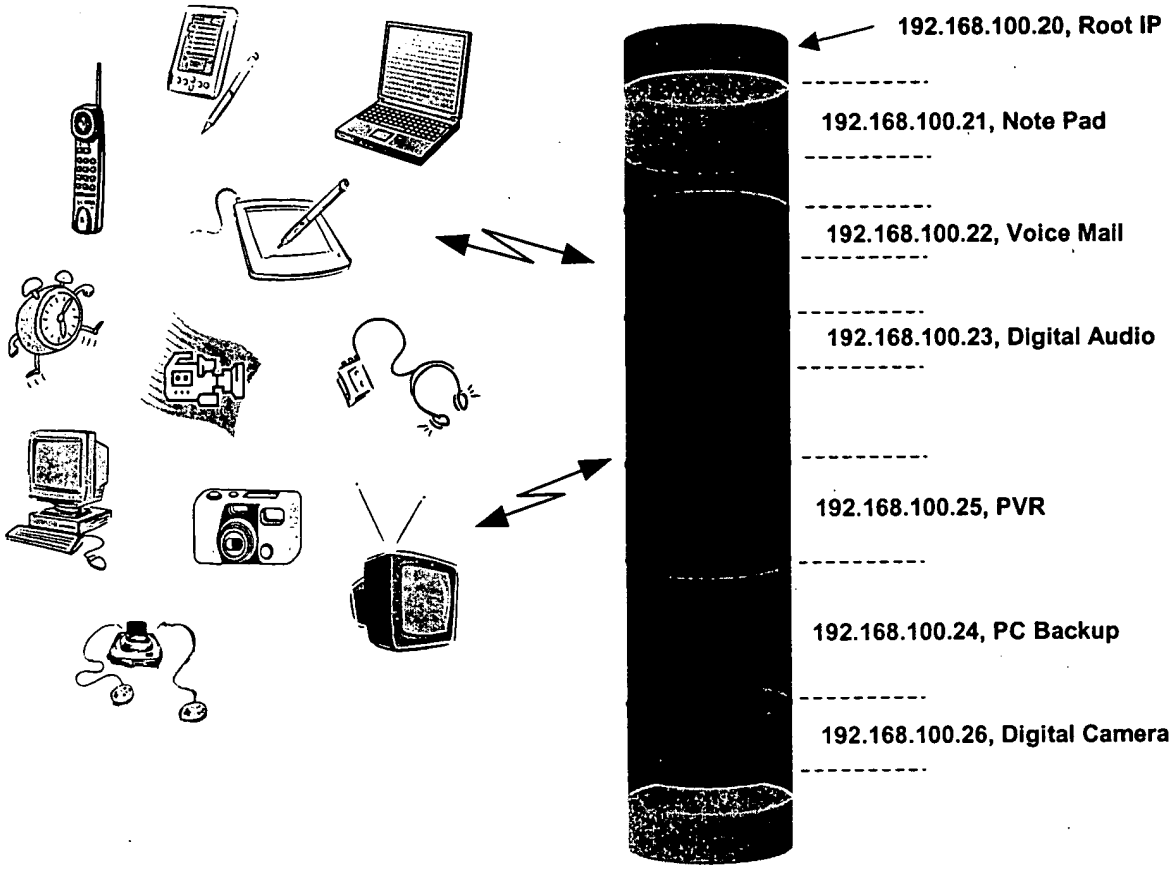
January 2003

Revision History

Version 0.01	January 2003	Original Release

Overview

The μSAN™ White Paper identifies a storage system and protocol whereas each of the individual partitions within that storage system is addressed in the Internetwork Protocol (IP) stack by a mutually exclusive IP address as shown below. The advantages of using the IP address for partition identification lies in its exclusivity in the IP stack allowing for simple routability, masterless control and unlimited multicast associations.



This paper identifies one method of transparently integrating the uSAN Client without the need to build new drivers for existing OS and or appliances with built in support for the defacto standard IDE storage interface. These devices include but are not limited too:

- Windows 95,98,2000,XP,CE
- Lynix
- SUN Solaris
- Apple 5,6,7,8,X
- Any Consumer Appliance supporting CFA Memory Cards
- Any Operating system with IDE compatible drivers.

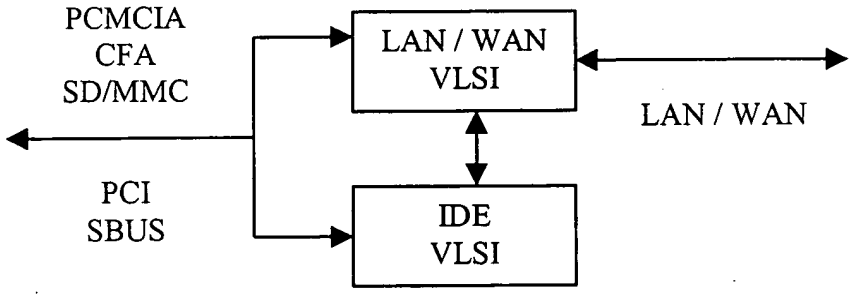
The basic premise is to implement an IDE driver compatible hardware interface within a Lan I/O card such that the uSAN IP protocol is made transparent to the host. Such a LAN / WAN card would transparently accesses uSAN using the hosts existing IDE drivers.

This scenario provides significant advantages to accelerate compatibility of existing Computers, Printers and Consumer Appliances which are already compatible with the industry defacto standard IDE interface.

It is envisioned that IDE uSAN Cards could take any of the following combinational forms for multifunction PCI, SBUS, PCMCIA, CFA or SD/MMC cards:

- IDE FLASH + IDE uSAN + LAN / WAN
- IDE SRAM + IDE uSAN + LAN / WAN
- IDE uSAN + LAN + WAN

These cards / USB adapters would essentially convert > 80% of the millions of existing computer and appliance products into uSAN compatible client devices…



It should be noted that this same methodology could be built into the future core logic, with embedded LAN / WAN support, to provide transparent Client compatibility for computers independent of the OS.